REVISIONS			
LTR	DESCRIPTION	DATE (YR-MO-DA)	APPROVED
A	Table I, capacitive load test, units column, correct pF to mF. -gz	07-08-23	Robert M. Heber
B	Table I, load regulation test, change the (-aux) non-RHA and the (±aux) RHA maximum limit from 60 mV to 500 mV. -gz	07-10-23	Robert M. Heber
C	Paragraph 1.3; changed the power dissipation (P_D) from 26 W to 25 W. Table I; For the power dissipation (P_D) test, combined subgroup 1 with subgroups 2 and 3 for pre-irradiation testing with the maximum limit of 25 W. Paragraph 4.3.5 table for the single event upset survival level (LET) changed the units from "MeV" to "MeV-cm^2/mg". Added footnote 1 to table II, under group C end-point electricals. Updated drawing paragraphs. -sld	12-03-01	Charles F. Saffle

REV																				
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REV STATUS				REV			C	C	C	C	C	C	C	C	C	C	C	C	C	
OF SHEETS				SHEET			1	2	3	4	5	6	7	8	9	10	11	12	13	

PMIC N/A

PREPARED BY
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APPROVED BY
Robert M. Heber

DRAWING APPROVAL DATE
07-07-13

REVISION LEVEL
C

STANDARD MICROCIRCUIT DRAWING

THIS DRAWING IS AVAILABLE FOR USE BY ALL DEPARTMENTS AND AGENCIES OF THE DEPARTMENT OF DEFENSE

AMSC N/A

DLA LAND AND MARITIME
COLUMBUS, OHIO 43218-3990
http://www.landandmaritime.dla.mil/

MICROCIRCUIT, HYBRID, LINEAR, +5 VOLT AND ±15 V, TRIPLE CHANNEL, DC-DC CONVERTER

SIZE	CAGE CODE	
A	**67268**	**5962-06226**

SHEET 1 OF 13

1. SCOPE

1.1 Scope. This drawing documents five product assurance classes as defined in paragraph 1.2.3 and MIL-PRF-38534. A choice of case outlines and lead finishes which are available and are reflected in the Part or Identifying Number (PIN). When available, a choice of radiation hardness assurance levels are reflected in the PIN.

1.2 PIN. The PIN shall be as shown in the following example:

5962	-	06226	01	H	X	X
½ ½ ½	½ ½ ½		½ ½ ½	½ ½ ½	½ ½ ½	½ ½ ½
Federal stock class designator	RHA designator (see 1.2.1)		Device type (see 1.2.2)	Device class designator (see 1.2.3)	Case outline (see 1.2.4)	Lead finish (see 1.2.5)
_____ /						
\/ Drawing number						

1.2.1 Radiation hardness assurance (RHA) designator. RHA marked devices shall meet the MIL-PRF-38534 specified RHA levels and shall be marked with the appropriate RHA designator. A dash (-) indicates a non-RHA device.

1.2.2 Device type(s). The device type(s) identify the circuit function as follows:

Device type	Generic number	Circuit function
01	SMRT28515T	DC-DC converter, 30 W, +5 V and ±15 V outputs

1.2.3 Device class designator. This device class designator shall be a single letter identifying the product assurance level. All levels are defined by the requirements of MIL-PRF-38534 and require QML Certification as well as qualification (Class H, K, and E) or QML Listing (Class G and D). The product assurance levels are as follows:

Device class	Device performance documentation
K	Highest reliability class available. This level is intended for use in space applications.
H	Standard military quality class level. This level is intended for use in applications where non-space high reliability devices are required.
G	Reduced testing version of the standard military quality class. This level uses the Class H screening and In-Process Inspections with a possible limited temperature range, manufacturer specified incoming flow, and the manufacturer guarantees (but may not test) periodic and conformance inspections (Group A, B, C and D).
E	Designates devices which are based upon one of the other classes (K, H, or G) with exception(s) taken to the requirements of that class. These exception(s) must be specified in the device acquisition document; therefore the acquisition document should be reviewed to ensure that the exception(s) taken will not adversely affect system performance.
D	Manufacturer specified quality class. Quality level is defined by the manufacturers internal, QML certified flow. This product may have a limited temperature range.

1.2.4 Case outline(s). The case outline(s) are as designated in MIL-STD-1835 and as follows:

Outline letter	Descriptive designator	Terminals	Package style
X	See figure 1	12	Flange mount

1.2.5 Lead finish. The lead finish shall be as specified in MIL-PRF-38534.

1.3 Absolute maximum ratings. 1/

Input voltage range (V_{IN}) 2/	-0.5 V dc to +80 V dc
Power dissipation (P_D)	25 W
Output power	30 W
Lead soldering temperature (10 seconds)	+300°C
Storage temperature range	-65°C to +150°C

1.4 Recommended operating conditions.

Input voltage range (V_{IN})	+19 V dc to +56 V dc
Case operating temperature range (T_C)	-55°C to +125°C

1.5 Radiation features.

Maximum total dose available (dose rate = 9 rads(Si)/s):

Device type 01 (RHA levels P, L, and F)	300 krads(Si) 2/

2. APPLICABLE DOCUMENTS

2.1 Government specification, standards, and handbooks. The following specification, standards, and handbooks form a part of this drawing to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

DEPARTMENT OF DEFENSE SPECIFICATION

MIL-PRF-38534 - Hybrid Microcircuits, General Specification for.

DEPARTMENT OF DEFENSE STANDARDS

MIL-STD-883 - Test Method Standard Microcircuits.
MIL-STD-1835 - Interface Standard for Electronic Component Case Outlines.

DEPARTMENT OF DEFENSE HANDBOOKS

MIL-HDBK-103 - List of Standard Microcircuit Drawings.
MIL-HDBK-780 - Standard Microcircuit Drawings.

(Copies of these documents are available online at https://assist.daps.dla.mil/quicksearch/ or from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

2.2 Order of precedence. In the event of a conflict between the text of this drawing and the references cited herein, the text of this drawing takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

1/ Stresses above the absolute maximum ratings may cause permanent damage to the device. Input voltage transients between 56 V to 80 V are allowed for no more than 120 milliseconds. Extended operation at the maximum levels may degrade performance and affect reliability.
2/ These parts may be dose rate sensitive in a space environment and may demonstrate enhanced low dose rate effects. Radiation end-point limits for the noted parameters are guaranteed only for the conditions as specified in MIL-STD-883, method 1019, condition C, tested at 9 rads(Si)/s.

3. REQUIREMENTS

3.1 Item requirements. The individual item performance requirements for device classes D, E, G, H, and K shall be in accordance with MIL-PRF-38534. Compliance with MIL-PRF-38534 shall include the performance of all tests herein or as designated in the device manufacturer's Quality Management (QM) plan or as designated for the applicable device class. The manufacturer may eliminate, modify or optimize the tests and inspections herein, however the performance requirements as defined in MIL-PRF-38534 shall be met for the applicable device class. In addition, the modification in the QM plan shall not affect the form, fit, or function of the device for the applicable device class.

3.2 Design, construction, and physical dimensions. The design, construction, and physical dimensions shall be as specified in MIL-PRF-38534 and herein.

3.2.1 Case outline. The case outline shall be in accordance with 1.2.4 herein and figure 1.

3.2.2 Terminal connections. The terminal connections shall be as specified on figure 2.

3.2.3 Radiation exposure circuit. The radiation exposure circuit shall be maintained by the manufacturer under document revision level control and shall be made available to the preparing and acquiring activity upon request.

3.3 Electrical performance characteristics. Unless otherwise specified herein, the electrical performance characteristics are as specified in table I and shall apply over the full specified operating temperature range.

3.4 Electrical test requirements. The electrical test requirements shall be the subgroups specified in table II. The electrical tests for each subgroup are defined in table I.

3.5 Marking of device(s). Marking of device(s) shall be in accordance with MIL-PRF-38534. The device shall be marked with the PIN listed in 1.2 herein. In addition, the manufacturer's vendor similar PIN may also be marked.

3.6 Data. In addition to the general performance requirements of MIL-PRF-38534, the manufacturer of the device described herein shall maintain the electrical test data (variables format) from the initial quality conformance inspection group A lot sample, for each device type listed herein. Also, the data should include a summary of all parameters manually tested, and for those which, if any, are guaranteed. This data shall be maintained under document revision level control by the manufacturer and be made available to the preparing activity (DLA Land and Maritime -VA) upon request.

3.7 Certificate of compliance. A certificate of compliance shall be required from a manufacturer in order to supply to this drawing. The certificate of compliance (original copy) submitted to DLA Land and Maritime -VA shall affirm that the manufacturer's product meets the performance requirements of MIL-PRF-38534 and herein.

3.8 Certificate of conformance. A certificate of conformance as required in MIL-PRF-38534 shall be provided with each lot of microcircuits delivered to this drawing.

4. VERIFICATION

4.1 Sampling and inspection. Sampling and inspection procedures shall be in accordance with MIL-PRF-38534 or as modified in the device manufacturer's Quality Management (QM) plan. The modification in the QM plan shall not affect the form, fit, or function as described herein.

4.2 Screening. Screening shall be in accordance with MIL-PRF-38534. The following additional criteria shall apply:

a. Burn-in test, method 1015 of MIL-STD-883.

(1) Test condition A, B, C, or D. The test circuit shall be maintained by the manufacturer under document revision level control and shall be made available to either DLA Land and Maritime -VA or the acquiring activity upon request. Also, the test circuit shall specify the inputs, outputs, biases, and power dissipation, as applicable, in accordance with the intent specified in method 1015 of MIL-STD-883.

(2) T_A as specified in accordance with table I of method 1015 of MIL-STD-883.

b. Interim and final electrical test parameters shall be as specified in table II herein, except interim electrical parameter tests prior to burn-in are optional at the discretion of the manufacturer.

TABLE I. Electrical performance characteristics.

Test	Symbol	Conditions 1/ 2/ -55°C £ T_C £ +125°C V_{IN} = 28 V dc ±0.5 V dc no external sync, C_L = 0 unless otherwise specified	Group A subgroups	Device type	Limits		Unit
					Min	Max	
Output voltage	V_{OUT}	I_{OUT} = 3 A (main)	1	01	4.95	5.05	V
			2,3		4.92	5.08	
		P,R,F	1,2,3		4.88	5.12	
		±I_{OUT} = 500 mA (+aux)	1		14.85	15.15	
			2,3		14.77	15.23	
		P,R,F	1,2,3		14.70	15.30	
		±I_{OUT} = 500 mA (-aux)	1		14.77	15.23	
			2,3		14.70	15.30	
		P,R,F	1,2,3		14.60	15.40	
Output current 3/	I_{OUT}	V_{IN} = 19 V dc, 28 V dc, and 50 V dc (main)	1,2,3	01		3	A
		P,R,F	1,2,3			3	
		V_{IN} = 19 V dc, 28 V dc, and 50 V dc (±aux)	1,2,3			750	mA
		P,R,F	1,2,3			750	
Output ripple voltage	V_{RIP}	B.W. < 20 MHz, I_{OUT} = 3 A (main)	1	01		180	mVp-p
			2,3			200	
		P,R,F	1,2,3			200	
		B.W. < 20 MHz, ±I_{OUT} = 500 mA (±aux)	1			150	
			2,3			200	
		P,R,F	1,2,3			200	

See footnotes at end of table.

TABLE I. Electrical performance characteristics - Continued.

Test	Symbol	Conditions 1/ 2/ -55°C £ T_C £ +125°C V_{IN} = 28 V dc ±0.5 V dc no external sync, C_L = 0 unless otherwise specified	Group A subgroups	Device type	Limits		Unit
					Min	Max	
Line regulation	VR_{LINE}	V_{IN} = 19 V dc to/from 50 V dc, I_{OUT} = 3 A (main)	1,2,3	01		25	mV
		P,R,F	1,2,3			50	
		V_{IN} = 19 V dc to/from 50 V dc, ±I_{OUT} = 500 mA (+aux)	1,2,3			25	
		(-aux)	1,2,3			35	
		P,R,F	1,2,3			70	
Load regulation	VR_{LOAD}	I_{OUT} = 0 to 3 A (main)	1,2,3	01		50	mV
		P,R,F	1,2,3			50	
		±I_{OUT} = 0 to 500 mA, (+aux) both outputs changed simultaneously	1,2,3			50	
		(-aux)	1,2,3			500	
		P,R,F	1,2,3			500	
Input current	I_{IN}	All I_{OUT} = 0, Inhibit (pin) 3 = 0 V dc (tied to pin 2)	1,2,3	01		50	mA
		P,R,F	1,2,3			50	
		All I_{OUT} = 0, Inhibit (pin) 3 = open	1,2,3			110	
		P,R,F	1,2,3			110	
Input ripple current 4/	I_{RIP}	I_{OUT} = 3 A (main), ±I_{OUT} = 500 mA (±aux), B. W. < 20 MHz	1,2	01		100	mAp-p
			3			150	
		P,R,F	1,2,3			150	
Efficiency	Eff	I_{OUT} = 3 A, (main) ±I_{OUT} = 500 mA (±aux)	1	01	72		%
			2,3		70		
		P,R,F	1,2,3		70		

See footnotes at end of table.

TABLE I. Electrical performance characteristics - Continued.

Test	Symbol	Conditions 1/ 2/ $-55°C \le T_C \le +125°C$, V_{IN} = 28 V dc ±0.5 V dc, no external sync, C_L = 0 unless otherwise specified		Group A subgroups	Device type	Limits		Unit
						Min	Max	
Isolation	ISO	Input to either output or to sync return, or any pin to case at 500 V dc, T_C = +25°C		1	01	100		MW
			P,R,F	1		100		
Capacitive load 5/ 6/	C_L	No affect on dc performance, T_C = +25°C	(main)	4	01		5000	mF
			P,R,F	4			5000	
		No affect on dc performance, T_C = +25°C	(±aux)	4			1000	
			P,R,F	4			1000	
Power dissipation	P_D	Short circuit on main, $P_D = P_{IN}$ - total P_{OUT}		1,2,3	01		25	W
			P,R,F	1,2,3			25	
		Short circuit on both aux outputs simultaneously, $P_D = P_{IN}$ - total P_{OUT}		1,2,3			25	
			P,R,F	1,2,3			25	
Switching frequency 7/	F_S	I_{OUT} = 3 A (main), $\pm I_{OUT}$ = 500 mA (±aux)		4	01	270	330	kHz
				5,6		270	330	
			P,R,F	4,5,6		270	330	
External sync range 7/	F_{SYNC}	I_{OUT} = 3 A (main), $\pm I_{OUT}$ = 500 mA (±aux), TTL level to pin 4		4,5,6	01	270	330	kHz
			P,R,F	4,5,6		270	330	

See footnotes at end of table.

TABLE I. Electrical performance characteristics - Continued.

Test	Symbol	Conditions 1/ 2/ $-55°C \le T_C \le +125°C$ V_{IN} = 28 V dc ±0.5 V dc no external sync, C_L = 0 unless otherwise specified	Group A subgroups	Device type	Limits		Unit
					Min	Max	
Output response to step load transient 8/	V_{TLOAD}	50% load to/from 100% load (main)	4	01	-200	+200	mV pk
			5,6		-250	+250	
		P,R,F	4,5,6		-250	+250	
		50% load to/from 100% load, balanced loads on each output (±aux)	4		-300	+300	
			5,6		-350	+350	
		P,R,F	4,5,6		-350	+350	
Recovery time from step load transient 8/ 9/	T_{TLOAD}	50% load to/from 100% load (main)	4,5,6	01		1	ms
		P,R,F	4,5,6			1	
		50% load to/from 100% load, balanced loads on each output (±aux)	4,5,6			1	
		P,R,F	4,5,6			1	
Output response to step line transient 6/ 10/	V_{TLINE}	Input step = 19 V dc to/from 50 V dc, I_{OUT} = 3 A (main)	4,5,6	01	-500	+500	mV pk
		P,R,F	4,5,6		-600	+600	
		Input step = 19 V dc to/from 50 V dc, $\pm I_{OUT}$ = 500 mA (±aux)	4,5,6		-750	+750	
		P,R,F	4,5,6		-900	+900	
Recovery time from to step line transient 6/ 9/ 10/	T_{TLINE}	Input step = 19 V dc to/from 50 V dc, I_{OUT} = 3 A (main)	4,5,6	01		1.5	ms
		P,R,F	4,5,6			1.5	
		Input step = 19 V dc to/from 50 V dc, $\pm I_{OUT}$ = 500 mA (±aux)	4,5,6			1.5	
		P,R,F	4,5,6			1.5	

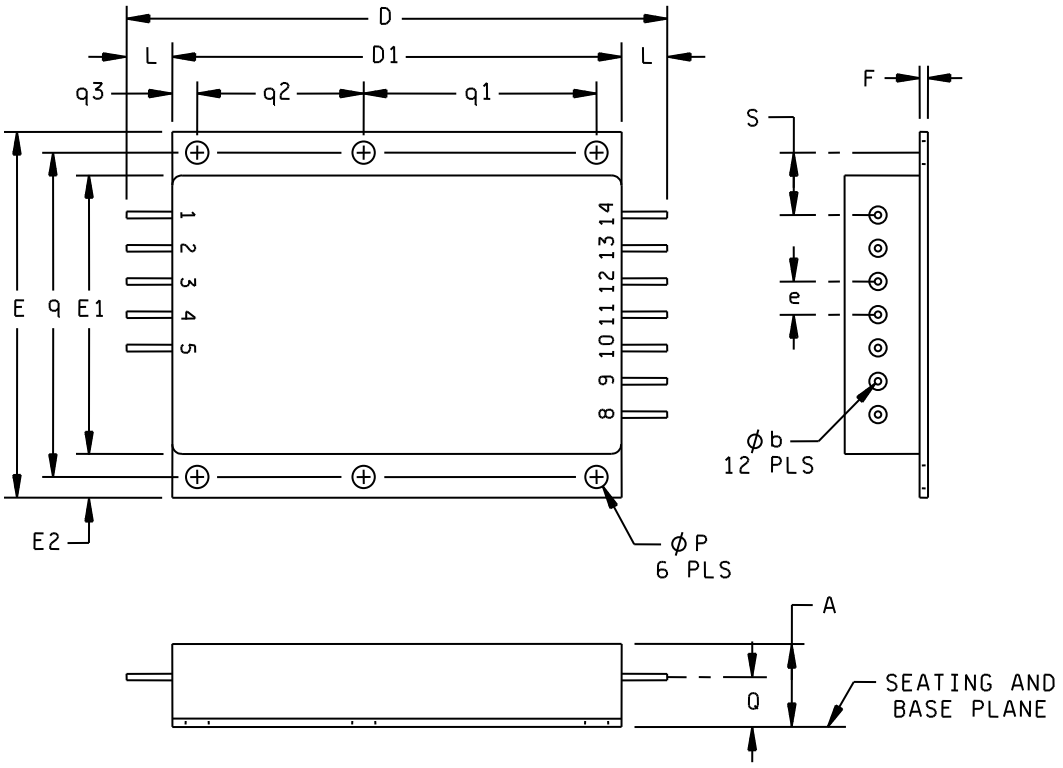
See footnotes at end of table.

TABLE I. Electrical performance characteristics - Continued.

Test	Symbol	Conditions 1/ 2/ -55°C £ T_C £ +125°C V_{IN} = 28 V dc ±0.5 V dc no external sync, C_L = 0 unless otherwise specified		Group A subgroups	Device type	Limits		Unit
						Min	Max	
Start up overshoot	$Vton_{OS}$	V_{IN} = 0 to 28 V dc, (main) I_{OUT} = 3 A		4,5,6	01		200	mV pk
			P,R,F	4,5,6			200	
		V_{IN} = 0 to 28 V dc, (±aux) $\pm I_{OUT}$ = 500 mA		4,5,6			350	
			P,R,F	4,5,6			350	
Start up delay 11/	Ton_D	V_{IN} = 0 to 28 V dc, (main) I_{OUT} = 3 A		4,5,6	01		25	ms
			P,R,F	4,5,6			35	
		V_{IN} = 0 to 28 V dc, (±aux) $\pm I_{OUT}$ = 500 mA		4,5,6			20	
			P,R,F	4,5,6			20	
Load fault recovery 6/ 9/	Tr_{LF}	I_{OUT} = from S.C. to 3 A (main) or $\pm I_{OUT}$ = from S.C. to 500 mA (±aux)		4,5,6	01		35	ms
			P,R,F	4,5,6			35	

1/ Post irradiation testing shall be in accordance with paragraph 4.3.5 herein.
2/ These parts may be dose rate sensitive in a space environment and may demonstrate enhanced low dose rate effects. Radiation end-point limits for the noted parameters are guaranteed only for the conditions as specified in MIL-STD-883, method 1019, condition C, tested at 9 rads(Si)/s.
3/ Up to 750 mA is available from either auxiliary output provided the total auxiliary output power does not exceed 15 watts.
4/ Converter input ripple current emissions are compliant to MIL-STD-461C, D, CE-03, and CE-102. Contact the approved source of supply for compliancy.
5/ Capacitive load may be any value from 0 to the maximum limit without compromising dc performance.
6/ Parameter shall be tested as part of design characterization and after design or process changes. Thereafter, parameters shall be guaranteed to limits specified in table I.
7/ A TTL level waveform (V_{IH} = 4.5 V minimum, V_{IL} = 0.8 V maximum) with a 50 percent ±10 percent duty cycle applied to the sync input pin (pin 4) within the sync range frequency shall cause the converter's switching frequency to become synchronous with the frequency applied to the sync input pin (pin 4).
8/ Load step transition time is greater than 10 microseconds.
9/ Recovery time is measured from the initiation of the transient to where $\pm V_{OUT}$ has returned to within ±1 percent of $\pm V_{OUT}$ final value.
10/ Input step transition time is greater than 10 microseconds.
11/ Start up delay time measurement is either for a step application of power at the input or the removal of a ground signal from the inhibit pin (pin 3) while power is applied to the input.

Case outline X.



Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A		10.16		.400
øb	0.89	1.14	.035	.045
D		82.93		3.265
D1		68.71		2.705
E	55.75	56.01	2.195	2.205
E1	42.42	42.67	1.670	1.680
E2	6.53	6.78	.257	.267
e	4.95	5.21	.195	.205
F	1.14	1.40	.045	.055
L		6.86		.270
øP	3.30	3.56	.130	.140
Q	5.46	5.72	.215	.225
q	49.40	49.66	1.945	1.955
q1	35.43	35.69	1.395	1.405
q2	25.27	25.53	.995	1.005
q3	3.68	3.94	.145	.155
S	9.40	9.65	.370	.380

NOTES:
1. Each pin is insulated from the metal package by a glass bead.
2. The U.S. government preferred system of measurement is the metric SI. This item was designed using inch-pound units of measurement. In case of problems involving conflicts between the metric and inch-pound units, the inch-pound units shall rule.
3. Lead number are for reference.
4. Device weight: 100 grams maximum.

FIGURE 1. Case outline.

Device type	01
Case outline	X
Terminal number	Terminal symbol
1	Positive V_{IN}
2	V_{IN} return
3	Inhibit
4	Sync input
5	Sync return
8	Trim B
9	V_{OUT} B negative
10	V_{OUT} B return
11	V_{OUT} B positive
12	Trim A
13	V_{OUT} A
14	V_{OUT} A return

FIGURE 2. Terminal connections.

TABLE II. Electrical test requirements.

MIL-PRF-38534 test requirements	Subgroups (in accordance with MIL-PRF-38534, group A test table)
Interim electrical parameters	- - -
Final electrical parameters	1*, 2, 3, 4, 5, 6
Group A test requirements	1, 2, 3, 4, 5, 6
Group C end-point electrical 1/ parameters	1,2,3
End-point electrical parameters for radiation hardness assurance (RHA) devices	1, 2, 3, 4, 5, 6

1/ As a minimum, for all Group C testing performed after (12-03-01) manufacturers shall perform subgroups 1, 2, and 3 from the Group A electrical test table (Table C-Xa of MIL-PRF-38534).
* PDA applies to subgroup 1.

4.3 Conformance and periodic inspections. Conformance inspection (CI) and periodic inspection (PI) shall be in accordance with MIL-PRF-38534 and as specified herein.

4.3.1 Group A inspection (CI). Group A inspection shall be in accordance with MIL-PRF-38534 and as follows:

a. Tests shall be as specified in table II herein.

b. Subgroups 7, 8, 9, 10, and 11 shall be omitted.

4.3.2 Group B inspection (PI). Group B inspection shall be in accordance with MIL-PRF-38534.

4.3.3 Group C inspection (PI). Group C inspection shall be in accordance with MIL-PRF-38534 and as follows:

a. End-point electrical parameters shall be as specified in table II herein.

b. Steady-state life test, method 1005 of MIL-STD-883.

(1) Test condition A, B, C, or D. The test circuit shall be maintained by the manufacturer under document revision level control and shall be made available to either DLA Land and Maritime -VA or the acquiring activity upon request. Also, the test circuit shall specify the inputs, outputs, biases, and power dissipation, as applicable, in accordance with the intent specified in method 1005 of MIL-STD-883.

(2) T_A as specified in accordance with table I of method 1005 of MIL-STD-883.

(3) Test duration: 1,000 hours, except as permitted by method 1005 of MIL-STD-883.

4.3.4 Group D inspection (PI). Group D inspection shall be in accordance with MIL-PRF-38534.

4.3.5. Radiation hardness assurance (RHA). RHA qualification is required only for those devices with the RHA designator as specified herein.

	RHA level P	RHA level R	RHA level F	Units
Total ionizing dose tolerance level	30	100	300	krads(Si)
Single event upset survival level (LET)	80	80	80	MeV-cm^2/mg

a. Radiation dose rate is in accordance with condition C of method 1019 of MIL-STD-883. Unless otherwise specified, components are tested at a rate of 9 rads(Si)/s, in accordance with method 1019 of MIL-STD-750 or MIL-STD-883, as applicable. These parts may be dose rate sensitive in a space environment and may demonstrate enhanced low dose rate effects.

b. The manufacturer shall perform a worst-case and radiation susceptibility analysis on the device. This analysis shall show that the minimum performance requirements of each component has adequate design margin under worst-case operating conditions (extremes of line voltage, temperatures, load, frequency, radiation environment, etc.). This analysis guarantees the post-irradiation parameter limits specified in table I.

c. RHA testing shall be performed at the component level for initial device qualification, and after design changes that may affect the RHA performance of the device. As an alternative to testing, components may be procured to manufacturer radiation guarantees that meet the minimum performance requirements. Component radiation performance guarantees shall be established in compliance with MIL-PRF-19500, Group D or MIL-PRF-38535, Group E, as applicable. For components with less than adequate performance margin, component lot radiation acceptance screening shall be performed.

d. The manufacturer shall establish procedures controlling component radiation testing, and shall establish radiation test plans used to implement component lot qualification during procurement. Test plans and test reports shall be filed and controlled in accordance with the manufacturer's configuration management system.

e. The device manufacturer shall designate a RHA program manager to oversee component lot qualification, and to monitor design changes for continued compliance to RHA requirements.

5. PACKAGING

5.1 Packaging requirements. The requirements for packaging shall be in accordance with MIL-PRF-38534.

6. NOTES

6.1 Intended use. Microcircuits conforming to this drawing are intended for use for Government microcircuit applications (original equipment), design applications, and logistics purposes.

6.2 Replaceability. Microcircuits covered by this drawing will replace the same generic device covered by a contractor-prepared specification or drawing.

6.3 Configuration control of SMD's. All proposed changes to existing SMD's will be coordinated as specified in MIL-PRF-38534.

6.4 Record of users. Military and industrial users shall inform DLA Land and Maritime when a system application requires configuration control and the applicable SMD to that system. DLA Land and Maritime will maintain a record of users and this list will be used for coordination and distribution of changes to the drawings. Users of drawings covering microelectronic devices (FSC 5962) should contact DLA Land and Maritime-VA, telephone (614) 692-0547.

6.5 Comments. Comments on this drawing should be directed to DLA Land and Maritime-VA, Columbus, Ohio 43218-3990, or telephone (614) 692-1081.

6.6 Sources of supply. Sources of supply are listed in MIL-HDBK-103 and QML-38534. The vendors listed in MIL-HDBK-103 and QML-38534 have submitted a certificate of compliance (see 3.7 herein) to DLA Land and Maritime-VA and have agreed to this drawing.

STANDARD MICROCIRCUIT DRAWING BULLETIN

DATE: 12-03-01

Approved sources of supply for SMD 5962-06226 are listed below for immediate acquisition information only and shall be added to MIL-HDBK-103 and QML-38534 during the next revisions. MIL-HDBK-103 and QML-38534 will be revised to include the addition or deletion of sources. The vendors listed below have agreed to this drawing and a certificate of compliance has been submitted to and accepted by DLA Land and Maritime -VA. This information bulletin is superseded by the next dated revisions of MIL-HDBK-103 and QML-38534. DLA Land and Maritime maintains an online database of all current sources of supply at http://www.landandmaritime.dla.mil/Programs/Smcr/.

Standard microcircuit drawing PIN 1/	Vendor CAGE number	Vendor similar PIN 2/
5962-0622601HXA	3/	SMRT28515T/HO
5962-0622601HXC	3/	SMRT28515T/HO
5962P0622601HXA	50821	SMRT28515T/HP
5962P0622601HXC	50821	SMRT28515T/HP
5962R0622601HXA	50821	SMRT28515T/HR
5962R0622601HXC	50821	SMRT28515T/HR
5962P0622601KXA	50821	SMRT28515T/KP
5962P0622601KXC	50821	SMRT28515T/KP
5962R0622601KXA	50821	SMRT28515T/KR
5962R0622601KXC	50821	SMRT28515T/KR
5962F0622601KXA	50821	SMRT28515T/KF
5962F0622601KXC	50821	SMRT28515T/KF

1/ The lead finish shown for each PIN representing a hermetic package is the most readily available from the manufacturer listed for that part. If the desired lead finish is not listed contact the Vendor to determine its availability.
2/ Caution. Do not use this number for item acquisition. Items acquired to this number may not satisfy the performance requirements of this drawing.
3/ Not available from an approved source of supply.

Vendor CAGE number	Vendor name and address
50821	Crane Electronics Incorporated 10301 Willows Road Redmond, WA 98052